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MCR temperature transducer, configurable, for Pt 100 temperature sensors, with screw-connection, not configured

#### **Product Features**

- Power supply possible via the foot element (TBUS)
- Optimized temperature measuring range of -50°C to +200°C for increased accuracy
- For 2, 3 or 4-wire Pt 100 sensors according to IEC 60751
- Error indication via diagnostic LED and analog signal
- Pt 100 signals to create standard signals
- 3-way isolation
- Highly-compact temperature transducer for electrical isolation, conversion, amplification, and filtering of
- Input and output signals can be configured via DIP switches



## **Key Commercial Data**

Packing unit	1 pc
Weight per Piece (excluding packing)	90.0 g
Custom tariff number	85437090
Country of origin	Germany

### Technical data

#### Note

Utilization restriction	EMC: class A product, see manufacturer's declaration in the download area

#### **Dimensions**



## Technical data

#### Dimensions

Width	6.2 mm
Height	93.1 mm
Depth	102.5 mm

## Ambient conditions

Ambient temperature (operation)	-20 °C 65 °C
Ambient temperature (storage/transport)	-40 °C 85 °C
Degree of protection	IP20

### Input data

Sensor types (RTD) that can be used	Pt 100 (IEC 60751/EN 60751)
Sensor input current	1 mA (constant)
Temperature measuring range	-50 °C 200 °C
Connection method	2, 3, 4-wire

## Output data

Number of outputs	1
Voltage output signal	0 V 10 V
	10 V 0 V
	0 V 5 V
	1 V 5 V
Current output signal	0 mA 20 mA
	4 mA 20 mA
	20 mA 0 mA
	20 mA 4 mA
Max. output voltage	approx. 12.5 V
Max. output current	23 mA
Short-circuit current	approx. 10 mA
Load/output load voltage output	> 10 kΩ
Load/output load current output	< 500 Ω (at 20 mA)

### Power supply

Nominal supply voltage	24 V DC
Supply voltage range	19.2 V DC 30 V DC (The DIN rail bus connector (ME 6,2 TBUS-2 1,5/5-ST-3,81 GN, Order No. 2869728) can be used to bridge the supply voltage. It can be snapped onto a 35 mm DIN rail according to EN 60715))
Max. current consumption	< 21 mA (at 24 V DC)
Power consumption	< 500 mW



## Technical data

### Connection data

Connection method	Screw connection
Conductor cross section solid min.	0.2 mm <sup>2</sup>
Conductor cross section solid max.	2.5 mm <sup>2</sup>
Conductor cross section AWG min.	26
Conductor cross section AWG max.	12
Conductor cross section flexible min.	0.2 mm <sup>2</sup>
Conductor cross section flexible max.	2.5 mm <sup>2</sup>
Stripping length	12 mm
Screw thread	M3

### General

Transmission error in the set measuring range	((50 K / Δ Temp)+ 0.05)%
Transmission error in the full measuring range	≤ 0,25 %
Maximum temperature coefficient	< 0.02 %/K
Protective circuit	Transient protection
Electrical isolation	Basic insulation according to EN 61010
Overvoltage category	II
Degree of pollution	2
Rated insulation voltage	50 V AC/DC
Test voltage, input/output/supply	1.5 kV (50 Hz, 1 min.)
Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Noise immunity	EN 61000-6-2 When being exposed to interference, there may be minimal deviations.
Color	green
Housing material	РВТ
Mounting position	any
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T5
GL	GL EMC 2 D

### EMC data

Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
Typical deviation from the measuring range final value	10 %



## Technical data

#### EMC data

Designation	Fast transients (burst)
Standards/regulations	EN 61000-4-4
Typical deviation from the measuring range final value	10 %
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Typical deviation from the measuring range final value	10 %

## Standards and Regulations

Electromagnetic compatibility	Conformance with EMC Directive 2004/108/EC
Noise emission	EN 61000-6-4
Connection in acc. with standard	CUL
Designation	Electromagnetic RF field
Standards/regulations	EN 61000-4-3
	EN 61000-4-4
Designation	Conducted interferences
Standards/regulations	EN 61000-4-6
Electrical isolation	Basic insulation according to EN 61010
Conformance	CE-compliant
ATEX	# II 3 G Ex nA IIC T4 Gc X
UL, USA / Canada	UL 508 Recognized
	Class I, Div. 2, Groups A, B, C, D T5
GL	GL EMC 2 D

## Classifications

### eCl@ss

eCl@ss 4.0	27200206
eCl@ss 4.1	27200206
eCl@ss 5.0	27200206
eCl@ss 5.1	27200206
eCl@ss 6.0	27200206
eCl@ss 7.0	27200206
eCl@ss 8.0	27371503

## **ETIM**

ETIM 2.0	EC001446
ETIM 3.0	EC001446



## Classifications

E.	ΤI	NΛ	
	H	IVI	

ETIM 4.0	EC001446
ETIM 5.0	EC002568

### **UNSPSC**

UNSPSC 6.01	30211506
UNSPSC 7.0901	39121008
UNSPSC 11	39121008
UNSPSC 12.01	39121008
UNSPSC 13.2	39121008

## Approvals

Approvals

Approvals

UL Recognized / cUL Recognized / GL / EAC / cULus Recognized

Ex Approvals

UL Listed / cUL Listed / ATEX / cULus Listed

Approvals submitted

### Approval details

UL Recognized **5** 

cUL Recognized

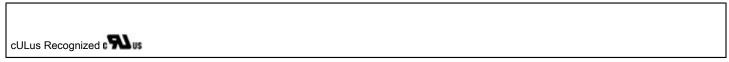
GL

EAC

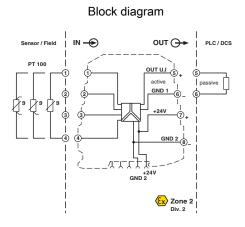
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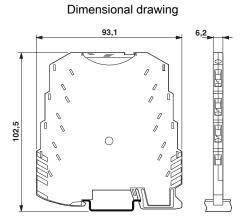


## Approvals



## **Drawings**





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